

REMARKS

The claims have been amended to incorporate the features of claims 2 and 3 into claim 1. Claim 1 has also been amended in view of the Examiner's rejection under 35 U.S.C., § 112, 2nd paragraph. Other editorial amendments have been made to the claims as shown above.

Rejection under 35 U.S.C. § 112, 2nd paragraph

The Examiner rejected claim, under 35 U.S.C. §112, 2nd paragraph, as being indefinite in the use of the word "it" in two occurrences. The Examiner further stated that the second occurrence of the word "it" cannot be the switching device, since the beam is part of the switching device.

Claim 4 has been amended to indicate that the stopper prevents the screen from coming into contact with the electrode. Support for this amendment can be found on pg. 3, at lines 17-21 of the specification as originally filed, which reads as follows:

"The electrodes 20 have, along their length, zones within which are located pairs of stoppers 24, which may, for instance, be identical to the end stoppers 18, one of the five in the example given, electrically isolated from the electrodes and intended to limit movements of the beam so that it does not come into contact with the electrodes."

The claim 4 amendment will overcome the Examiner's rejection under 35 U.S.C., § 112, 2nd paragraph.

Rejections under 35 U.S.C. § 102

The Examiner has rejected claims 1-3 and 14, under 35 U.S.C. § 102(e), as being anticipated by Wu (US 6,463,189). The Examiner has also rejected claims 1 and 9, under 35 U.S.C. § 102(b), as being anticipated by Mignardi et al. (US 5,226,099).

In the claimed switching device, a movable structure is movable relative to the electrodes. The movable structure is actuated by an electrostatic effect. A beam, which is made of conducting material (for example, doped polysilicon, as recited on pg. 3, at lines 1-

2), is placed in an electric field created between the two electrodes. Therefore, depending on the direction of the electric field, the beam will be attracted toward one or the other electrode, into one or the other of its end positions.

In contrast, Wu teaches electrodes placed directly on a movable structure. The moving structure is a “bimorphic piezoelectric deflection and latching apparatus.” Wu’s cantilever arm is made of two elements of quartz (102a, 102b), for instance, being bonded together and each placed between two electrodes. Different electrical potentials are applied to each element in order to contract one of them while expanding the other, thus generating a torsion of the cantilever arm and a displacement of its extremity. Accordingly, a person of ordinary skill in the art would not be motivated to use Wu’s teachings to arrive at Applicants’ claimed invention, in particular as now amended.

With respect to claim 14, there is no indication in Wu that the cross-section of the arm 103 is T-shaped, even though, when seen from above, the elements 103, 108a and 108b (see Fig. 1c) form a shape that is somehow similar to a “T.” In any case, the arguments presented above will overcome the Examiner’s rejection of claim 1, and therefore, the rejection of its dependent claim 14.

Mignardi discloses a switch comprising a moving structure 32, 40 and fixed electrodes 38a, 38b, which are activated in order to attract a part of the moving structure towards them under electrostatic effect. The electrodes, however, are both placed under the moving structure, thus on the same side of it. Although Mignardi’s Fig. 6 (cross-section of Figs. 2a and 2b) appears to show fixed electrodes 38a, 38b on each side of mirror 40, the drawing is likely in error, since the cross-sectional view in Fig. 6 is inconsistent with Figs. 2a and 2b.


In any case, amended claim 1 recites the features of original claims 2 and 3, thereby reciting a switch comprising a moving structure made of a beam and screen attached to it, wherein the electrodes are only placed along the beam. It is respectfully submitted that no new subject matter has been introduced by way of the amendment.

With respect to the Examiner’s 35 U.S.C. § 103(a) rejections of claims 4-6 in view of Wu and Chertkow, claims 7-8 in view of Wu, Chertkow and Jin et al., claim 10 in view of Mignardi, claims 11-13 in view of Mignardi and Yonekubo, and claim 15 in view of Wu, it is respectfully submitted that the arguments presented above will overcome the Examiner’s

rejections of claim 1 in view of Wu and Mignardi. Accordingly, the rejections of its dependent claims are moot.

The Applicants believe that the arguments and amendments presented herein are sufficient to overcome the Examiner's rejections. Accordingly, the Applicants respectfully request that the Examiner reconsider and allow the Applicants' application as amended.

Respectfully submitted,

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